

## ABSTRACT OF THE DISCLOSURE

A method of performing a descreening process with high accuracy by separating a first region from which a gradation area is to be derived and a second region from which a monotone area is to be derived from each other in a screened image with high accuracy is provided. Halftone dot positions and halftone cells are specified at an output resolution level based on the angle dependence of a distribution obtained by counting recorder grids constituting each halftone dot in one direction. By extracting edges of halftone dots and counting them in one direction, the position of deformed halftone dots positioned on a boundary between first regions having different gradation levels is detected at the output resolution level, whereby the position of picture-originated pixels is specified with high accuracy. Based on a positional relationship between inconsistent recorder grids caused when bringing the picture-originated pixels and SPM data into correspondence with each other which is derived from the result of the specification of the position of the picture-originated pixels, a preset separation mask is corrected with high accuracy at a recorder grid level. The use of the separation mask achieves high-accuracy separation between the first and second regions. Consequently, more precise correspondence between the picture-originated pixels and the SPM data improves the accuracy of the descreening process.